

We claim:

1 1. A method of making a curved glass-ceramic panel by bending a green glass
2 panel to be ceramicized, said method comprising the steps of:

3 a) performing said bending of said green glass panel in a heated chamber at
4 a temperature of from 10°C to 50°C above a transformation temperature of the
5 green glass panel to be bent;

6 b) providing a forming body with a geometric shape according to a bend
7 geometry of the glass-ceramic panel to be formed and tempering said forming body
8 at said temperature of the heated
9 chamber;

10 c) bringing said forming body into effective mechanical contact with said
11 green glass panel in a bending zone of said green glass panel to form a curved
12 green glass panel;

13 d) locally heating the green glass panel further in the vicinity of the bending
14 zone; and

15 e) ceramicizing the curved green glass panel to form the curved glass-
16 ceramic panel.

1 2. The method as defined in claim 1, further comprising heating said green glass
2 panel in the bending zone on one side thereof or on both sides thereof.

1 3. The method as defined in claim 2, further comprising heating said green glass
2 panel in the bending zone by means of a gas/oxygen burner.

1 4. The method as defined in claim 3, wherein said burner is moved in the vicinity of
2 the bending zone according to the bend geometry.

1 5. The method as defined in claim 4, wherein said burner is oscillated while being
2 moved.

1 6. The method as defined in claim 3, wherein said green glass panel is additionally
2 heated in the bending zone by means of an electro-heating device or a focused IR
3 radiation source.

1 7. The method as defined in claim 1, wherein said green glass panel is placed on
2 said forming body and said forming body acts as said workpiece support.

1 8. An apparatus for making a curved glass-ceramic panel by bending a green glass
2 panel to be ceramicized, said apparatus comprising
3 a workpiece support (3) having a geometric shape according to a bend
4 geometry for forming the curved glass-ceramic panel;
5 a heated chamber (2) for heating the workpiece support (3) and the green
6 glass panel at a temperature of from 10°C to 50°C above a transformation
7 temperature of the green glass panel to be bent;
8 heating sources (5) for local heating of the green glass panel further in a
9 bending zone during the bending; and
10 means for ceramicizing the green glass panel to form the curved glass-

11 ceramic panel.

1 9. The apparatus as defined in claim 8, wherein said workpiece support (3) is a one
2 piece stationary support having a shape according to the bending to be performed.

1 10. The apparatus as defined in claim 8, wherein said workpiece support (3)
2 comprises a plurality of segments (3a,3b) and said segments (3a,3b) are movable
3 relative to each other in order to produce an appropriately shaped bend in the
4 green glass panel.

1 11. The apparatus as defined in claim 10, wherein said segments (3a,3b) are
2 connected with each other by means of a roll mechanism (6) with a circular
3 segment.

1 12. The apparatus as defined in claim 10, further comprising an N/C controller for
2 controlling said segments (3a,3b) so that said segments (3a,3b) are movable in the
3 N/C axes to provide a predetermined bend radius according to the bending of the
4 green glass panel.